ENTOMOLOGICAL NEWS

AND

PROCEEDINGS OF THE ENTOMOLOGICAL SECTION,

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A NEW SPECIES OF COCCIDÆ, OF THE GENUS LECANIODIASPIS.

I.—DESCRIPTIVE.

By T. D. A. COCKERELL, N. M. Agr. Exp. Station.

Lecaniodiaspis (*Prosopophora*) **tessellatus** n. sp. ♀.—Scale nearly circular, moderately convex; long. 4½, lat. 4, alt. 2 mm.; above dull red-brown, not very dark, with dull white secretion forming lines, indistinct in middle, but at the sides forming very regular pentagons, with an oval or elongate median patch in each, arising from the margin of the scale. These pentagonal areas are eleven in number on each side, they are pointed mesad, the two shortest sides being the mesad ones, and the lateral side being formed by the margin of the scale. The lines of secretion indicate, but do not complete, three dorsal rows of enclosed areas, thus five rows in all. The enclosed areas are quite flat, not raised into little tubercles as in some species. Ventral surface of scale orange, rufous on the margin (boiled in caustic soda the insects stain the liquid burnt sienna color; they are full of dark crimson embryos which stain the liquid pink); antennæ brown, 8-jointed, cylindrical, joint 5 a little the longest, but not quite twice as long as broad; then 3 nearly as long, then 4 very nearly as long, then 6 very nearly as long,—3, 4 and 6 being almost equal. Then 2 as broad as long; 7 and 8 shortest, 8 shortest of all, with numerous hairs. Formula 53462 (71) 8. Sometimes the antennæ are 9-jointed; 4 longest, then 3, 5 to 9 all short and not far from equal; 2 almost as short as 4, broader than long; mouth-parts large; legs absent, as usual in the

genus; dermis with moderately numerous double gland-orifices, not extremely small; the orifices frequently diverging from each other, so that the two present a more or less crescentic outline. These double glands are arranged regularly in rows, nearly so as to make diagonal as well as longitudinal lines. The thicker parts of the skin are burnt sienna color, and conspicuously lineolately marbled all over. At both ends of the insect are many large, round, or suboval glands, showing a central spot. There is a stout bristle on each edge of the posterior cleft, with one or two small bristles a little laterad.

II.—BIOLOGICAL.

By A. L. QUAINTANCE, Fla. Agr. Exp. Station.

On Nov. 18, 1896, Prof. P. H. Rolfs called my attention to this coccid which he had discovered on a stick of hickory wood among some recently delivered stove-wood. About one week later I made a careful search for it in the neighborhood from which the wood was supposed to have been taken. Fortunately, the scale was found on the higher limbs of a large hickory tree (*Carya porcina* Nutt) which had been blown down by the severe storm of September 29. A careful search in the neighborhood of this tree among those that had been blown down, and among the smaller trees standing, failed to reveal the insect on any but the one tree, and as some of the limbs from the infested portion had been cut off it is quite probable that this was the tree from which the infested wood had been cut.

The scale is interesting, biographically, from the effect which it seems to produce on the infested limbs. It would appear that the scale causes a decided stunting of the tissue in its immediate vicinity. These stunted areas were not observed, except as associated with the scale. But not in every case was there a stunted area associated with the scales; see fig. 1. But in such cases the limbs infested were comparatively large and the bark thick, and the tissue beneath would not be so seriously affected as in the smaller and thinner barked limbs.

At this date, March 12, the young scales have just hatched. These doubtless soon become fixed and pass their life on one spot with the beak piercing the bark and extending into the tissue beneath; and this during the season that the tree is in most growth. As a result, the area immediately around the scale becomes retarded in its growth, while the unaffected tissue a little farther out keeps up its normal development, and the scale is eventually in a pit.

Figure 2 illustrates the condition at the end of the first year. It will be noticed that the pits are yet quite shallow.

Figure 3 illustrates the condition of the limb at the end of probably the second year. Dead and fragmentary scales may be found in the deepest depressions. The effect of the scale does not seem to die with it, but as the limb continues to grow the cavities are deepened and the abnormal development of the surrounding tissue becomes quite pronounced. Probably the presence of the beak in the tissue would be sufficient to thus stunt it, but this is by no means certain.

UTAH REVISITED—IDAHO AND WYOMING.

By Prof. A. J. SNYDER.

In vol. v, of ENT. NEWS, the author gave an account of his first trip to Utah in search of Lepidoptera. In 1895 it was his good fortune to revisit many of the scenes there described and to continue the trip northward through Idaho and home *via* the Yellowstone National Park. In this second trip Mr. Charles Stewart, of Evanston, was my companion.

A part of my plan was to stop in the places visited in 1893 long enough to secure a supply of certain species whose habitats were then discovered. *Chionobas chryxus*, one of the desired species, is found on mountain peaks among the barren rocks at elevations above 8000 feet.

On reaching Park City, Utah, we secured conveyance for our camping outfits and ourselves to a place known as Bonanza Flats. Here, at an elevation said to be above 9500 feet, we made camp and prepared to spend a week. We were above some snow banks, and from our camp could look out and up upon numerous other banks but little above us. On our way up one *Alypia sacramenti* was taken, a species so closely resembling *Alypia octomaculata* that one could easily fail to notice that the white spots are six instead of eight. Next morning, with the usual collecting outfit, we started up the peak nearest our tent. Just before reaching the backbone of the ridge all fears that we were too early for *C. chryxus* were allayed, and the first capture was made. Insect mimicry is a well-known topic in entomological works, of which *Chionobas chryxus* furnishes another instance. Its ability to alight on bare rocks within reach of one's net, drop

its primaries within its secondaries, and so closely resemble the rock itself, that it often requires minutes to exactly locate and capture it, is astonishing. If one but removes his eye for an instant from the insect he is fortunate, indeed, if he rediscover and capture it without first causing it to take flight. It is marvellous to find these fragile winged creatures in such exposed positions.

During the greater part of the week spent here the wind blew, greatly interfering with our work. Often the blasts were so strong that specimens of *C. chryxus* were literally carried away by the force—blown from the peaks only to disappear over the edges, drop below the wind currents and work their way back, flying close to earth and frequently alighting again even within reach of the net. More than 200 *chryxus* were taken, and among 140 examined on reaching home three females were found. Probably we were too early for the females, as a trip to another mountain a week later discovered more females, but nearly all of both sexes in worse condition. *Papilio zolicaon* was seen frequently, but was never abundant. A species of *Melitæa* (probably *nubigena*) was quite common on the highest points. Two species of *Mela-porphyria*, *ononis* and *belladonna*, were common at the very edge of the snow banks, also a small moth unknown to the author. These three species and *Pyrgus cæspitalis* (the latter noticed in 1893) seem to enjoy the moisture about the melting snow. *Parnassius smintheus* was not so abundant as in 1893.

It was interesting to note how all insect life disappeared whenever a cloud passed over the sun. A dozen *P. smintheus* might be in sight flitting lazily about, but when the shadow reached them every one would drop into the grass as though shot but never fail to drop into some place in which its colors could blend with the surrounding objects so completely as to escape the collector. How white and red can harmonize with the usually scant mountain vegetation is another part of the great subject, "protective coloration."

A notable feature of mountain life is the rapidity of plant growth. Immediately below the snow banks black areas, where the snow-water has retarded plant growth, are always visible, but after this area is small and usually plants are in blossom within a few feet of the snow, and on the blossoms one is almost certain to find insects. Two *Argynnis egleis* were taken on the peaks

and one *Euptoieta claudia* at an elevation but little less than 10,000 feet. An example of *claudia* was taken in Yellowstone Park. Thus the collector's heart is occasionally gladdened by meeting an old friend far from his accustomed haunts.

(To be continued.)

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RECOLLECTIONS OF OLD COLLECTING GROUNDS.

By H. F. WICKHAM.

I.—THE CŒUR D'ALENE DISTRICT.

This region is reached by rail after a short ride from Spokane Falls. Lying just inside of the western boundary of northern Idaho, is the beautifully clear Lake Cœur d'Alene, some twenty-five or thirty miles in length, irregular in shape and surrounded by coniferous forests, now burnt over by at least one great fire as shown by the charred logs which cover the ground in every direction. The outlet is formed by the Spokane River, which pursues a rapid and tortuous course past a few small villages and eventually passes through Spokane Falls, where the water-power developed is sufficient to run all the great mills that line its banks. Along the course of the river much of the timber is small, or has been so thinned out that it no longer has the character of a forest, but near the lake it is still very heavy in places. A few extensive meadows near the outlet of the lake offer another feature in the variety of available collecting grounds.

My visit was made during the latter part of July and in early August of the year 1889. In company with a friend, a conchologist, spent about three weeks in working the neighborhood of Cœur d'Alene City, then the terminus of that branch of the railroad and the point at which connections were made by steamer for mining camps farther up the lake. It is a beautiful place for collecting, and much of the adjacent scenery is both wild and magnificent, though at the time of my visit the hotel accommodations were none of the best. Close by the town lies the military post of Fort Sherman, and as a portion of the forests surrounding the lake lie on the reservation there is some hope that they may be preserved.

Some of the best spots can only be visited by boat, and it was through the kindness of our host that a skiff was kept constantly at our disposal, a most important consideration, since it was often

necessary to cross the lake, here perhaps four miles wide. As it was, we were able to visit any spot we chose.

Owing, probably, to the sandy character of the soil at some little distance from the lake, and to the immediate proximity of the great plains of eastern Wasnington, the fauna presents a rather mixed appearance. Many of the insects usually considered peculiar to the great coniferous belt occur here side by side with such genera as *Eleodes* and *Coniontis*, which, though not really confined to the western plains, nevertheless constitute one of their most striking features.

Many of the Carabidæ of the Cœur d'Alene district are of great interest and rarity. Special mention might be made of the *Cychri*, some species occurring here which are very seldom seen in collections. Early in August and in late July *Cychrus relictus*, *regularis* and *rickseckeri* are to be found along the lowlands bordering the river and in the valley of the little creek which forms the outlet of Trout Lake. The last-named species looks like a feebly developed *tuberculatus*. On the further side of the lake my friend, while hunting for snails, came across a single specimen of *C. merkelii*, which was at that time still undescribed. *Carabus oregonensis* was quite plentiful in the woods, under logs, not less than sixty or eighty specimens being obtained. *Calosoma moniliatum* and *C. cancellatum* were seen somewhat sparingly. *Notiophilus hardyi* was tolerably abundant in rubbish under logs. Of *Nebria* we took specimens of *sahlbergi* and *hudsonica*, though neither were abundant.

Two curious Trogositidæ were quite plentiful under bark or in polyporoid fungi—namely *Calitys scabra* and *Peltis pipingskældii*. The former looks exactly like a bit of rough, scaly-brown bark, the inequalities of the upper surface reproducing this appearance to a marvelous nicety. The *Peltis* is smoother, but very much depressed, and is by no means readily detected, unless in an exposed situation. Of the Nitidulidæ notice should appear of the curious *Epuræa monogama*, which lives, each couple by itself, in fungi; *Soronia guttulata*, of which only one specimen was obtained, under bark, and *Rhizophagus minutus*, which was rather common in like places.

Comparatively few captures of Elateridæ were made, chiefly, no doubt, on account of the lateness of the season. A few *Elater apicatus* were found under bark, while a number of fine

specimens of *Corymbites æreipennis* were obtained by rolling logs. *Dolopius lateralis* and *Megapenthes stigmosus* were, of course, common on flowers. It is worthy of remark that nearly, or quite all, of these Elateridæ are transcontinental in distribution.

Numerous long horns were obtained, mostly representative of species which are to be met with over the greater portion of the forest-clad region of the northwest. *Prionus californicus* and *Ergates spiculatus* were to be had by rolling pine logs, under which they hide, and in which, no doubt, the larvæ feed. The male *Prionus* has enormously heavy antennæ, the joints "shingling" on each other in a manner not often seen outside of the genus. The sexes of *Ergates spiculatus* are easily distinguished by the fact that in the male the prothorax is very broad, finely granulate and deeply foveate above, the sides armed with fine teeth, while in the female this part of the body is much narrower than the elytra, more coarsely granulated than in the male and with much larger lateral teeth. The Prioninæ, to which subfamily the above genera belong, are remarkable among the long horns for the prominence of secondary sexual characters, and it is interesting to note, among our own species, such curious modifications. *Tragosoma harrisii* was rare under pine logs. Several species of *Leptura* were found on flowers, the two most abundant being *L. crassipes* and *L. crassicornis* now united as sexes of the same thing. They frequented heads of umbelliferous plants on low ground close to the lake, and, judging from the rapidity with which my supply was exhausted, must previously have been quite rare in cabinets. *L. obliterata* was not uncommon. Of *L. canadensis* two very fine varieties occurred, namely *erythroptera*, in which the elytra are entirely red, and *tenuicornis*, where they are quite black.

Turning to the Chrysomelidæ we find a most remarkable form inhabiting the Cœur d'Alene district—*Timarcha intricata*, the only North American representative of a genus well developed in Europe. This insect is to be obtained in moss or on low plants under protecting logs; in appearance it resembles some Tenebrionidæ, especially a small *Eleodes*, the likeness being heightened by a peculiar rough sculpture very unlike most of our native Chrysomelids. Its motions are slow, and from its habits it seems one of those insects likely to disappear before approaching denudation and cultivation of its haunts.

In the shallower portions of the lake are great beds of water-lilies, on whose leaves *Donaciæ* disport themselves in the sun, safe from the hands of that collector who is provided only with means of working from the shore. Here we found our boat a most valuable adjunct, though even with this means of approach the activity of the beetles made their capture a matter of difficulty. On account of their activity it was necessary for one of us to row while the other perched in the bow with a net ready to strike. The individuals taken were *D. proxima*. *D. emarginata* was common on sedges along the shore.

The Tenebrionidæ were, in the main, such as frequent or feed upon dead wood—for example, *Cœlocnemis dilaticollis* and *Iphthimus serratus*, which occur on decaying pine in the same manner as *Nyctobates* infests deciduous trees in the East. However, *Eleodes nigrina* and *E. humeralis* were not uncommon in sandy spots, and several specimens of a *Coniotis* were also met with. *Scaphidema pictum* is coprophagous in habit, a large colony having been found in and under dung near the shore of the lake. They burrowed in the loose sand, much after the fashion of *Phaleria*.

Our departure was hastened by the breaking out of extensive and destructive forest fires, the smoke of which obscured the sun and rendered objects, situated more than a hundred yards or so, invisible. The pall of smoke reached all the way from Portland to Helena—though not equally dense at all points—and even when we left fires were eating out the edges of some of our best collecting grounds and threatening others which may be no longer in existence.

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COLEOPTEROLOGICAL NOTES FROM MY BROTHER'S DIARY.

By Emil C. Ehrmann, Pittsburg, Pa.

These notes are from my brother G. A. Ehrmann's note-book, and were made principally at Charleroi, Washington County, Pa. George is interested in Lepidoptera, and a younger brother, Albert, studies Ornithology, and the following notes are the result of their captures:

April 20.—Coleoptera plentiful, *Cyllene picta* in abundance on newly-cut hickory logs depositing eggs.

April 23.—*Cicindela sex-guttata* and *Phanæus carnifex* captured. *Lachnosterna* have appeared to-night in numbers.

April 25.—*Geotrupes splendens* and *semiopacus*, *Copris carolina*, *anaglypticus* and *minutus* were taken at Maple Creek.

April 26.—In moving a large stone from the base of an oak, *Quercus alba*, fifty-six specimens of *Helops micans* were brought to view and bottled.

April 27.—Have taken *Calosoma calidum* and *Chlænius tomentosus* on the McKean farm, and found *Elaphrus* and *Bembidium* by hundreds running over the sediment of the creek.

April 29.—South of Charleroi I found *Carabus vinctus* and several species of *Chlænius* very common.

May 5.—A fine specimen of *Toxotus vittiger* beat from a hickory.

May 6 to 28.—Have taken 171 specimens of *Toxotus cylindricollis* from young hickory.

May 29.—Caught a fine specimen of *Goes pulverulenta* while beating *Betula nigra*.

June 2.—Several specimens of *Arhopalus fulminans* were captured in beating *Carya porcia*.

June 3.—*Saperda tridentata* is found in numbers on the Elm and Acer.

June 7.—*Osmoderma scabra* and *eremicola*, *Merinus lævis* and some other good beetles in numbers found in a rotten log.

June 10.—Found *Bembidium postfasciatum* for the first time, in numbers, on the margin of Maple Creek.

June 12.—Captured *Cicindela sexguttata*, *purpurea*, *vulgaris* and *repanda* up from Lock No. 4.

June 13.—*Onthophagus janus* and *Canthon viridis* found in the stems of fungus.

June 14.—A successful day for Carabidæ; in fact, a red-letter day for ground beetles. *Dicælus ovalis*, *elongatus*, *politus* and *sculptilis*, *Apenes lucidula*, *Pterostichus vinctus*, *hamiltoni*, *honestus* and *mœstus*, *Patrobus longicornis* and three species of *Lebia* being a few of the many species taken.

June 15.—Captured a lovely specimen of *Saperda puncticollis* by beating poison-vine.

June 18.—In beating the Oaks *Dichelonycha elongata* was taken by hundreds, also several species of *Elater* and Cerambycidæ.

June 19.—A few common species of *Leptura* only were taken.

June 23.—*Prionus laticollis*, *Orthosoma brunnea*, *Saperda calcarata* and a few smaller beetles were taken to-day.

June 24.—*Copris carolina* is very common here, meeting with it on every trip.

June 25.—It seems that nature is all aglow, especially when an entomological collector finds the corpse of a cow inhabited by millions of Staphylinidæ, Silphidæ and Nitidulidæ.

September 6.—Since my last visit to Charleroi have taken quite a lot of *Lucanus dama* (all dead, yet perfect) at the roots of Oak trees; no doubt, after mating and depositing eggs, dying there.

September 12.—Golden-rod is beginning to bloom and find *Euphoria sepulchralis* and *Cyllene robiniæ* on it.

September 20.—*Leptostylus aculifera* and *Catogenus rufus* were taken under the bark of *Carya porcea* at East Charleroi, Westmoreland County.

October 3.—A fine female of *Sandalus niger* to-day while digging at the roots of *Quercus alba;* also a few specimens of *Leptostylus aculifera.*

October 6.—Several specimens of *Aphodius elongatus* were taken at the root of a Hickory.

October 17.—Collecting toward Bentlyville; took the first *Cychrus lecontei* of the season.

October 18.—On account of the humidity of the weather fungus is abundant, and several species of *Oxyporus* are infesting them; also *Ips fasciatus* in much variation, and *Ips sanguinipennis* and *obtusa.*

October 20.—Although raining collecting was continued, and a lot of *Cychrus lecontei* were captured, some in copula.

October 22.—Collected out the Bentlyville road and found *Penthe pimelia* and *obliquata*, and *Platycerus quercus* in numbers.

October 27.—At the north end of Maple Creek a well-decayed stump of *Betula alba* yielded 330 specimens of *Ischyrus 4-punctatus.*

November 1.—Found *Cucujus clavipes* and *Catogenus rufus* in numbers under bark of *Carya porcea* and *Acer rubrum.*

November 14.—Captured *Dicælus purpuratus*, *Pterostichus purpuratus*, *Cymindis americana* and many other good species at East Charleroi.

November 17.—Found a number of the elytra of *Myas coracinus* and *Cychrus andrewsii*, but not a perfect specimen.

November 19.—Under a large rotten log, imbedded about eight inches in the ground, *Pinodytes hamiltoni* was taken in numbers, feeding upon the dead larva of *Elater* sp.? Nothing remained of the larva but the skin.

December 5.—A new *Platydema* was taken under the bark of an Oak.

December 6.—In digging out the interior of a large, dead, standing maple trunk, 179 specimens of *Valgus squamiger* and six species of Elateridæ were taken.

ENTOMOLOGICAL NEWS.

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PHILADELPHIA, PA., SEPTEMBER, 1897.

LOCALITY LABELS.

THIS month we wish to again call the attention of our subscribers to the great importance of having pin locality labels on their specimens. Every collector should have a supply of these labels to furnish to his or her correspondents, so that all insects may have exact locality and date on the pin. In the past it was difficult to get these labels, but now Mr. Philip Nell, of Philadelphia, has consented to print them to order (see cover), and we hope every entomologist will take advantage of the chance to get them. In Philadelphia and Washington it is now the custom to write the date with a fine pen on each individual locality label. This much is imperative, any additional facts may be kept in a book with reference to a pin number, but we do not approve of pin numbers alone when they refer to date and locality as the reference books often become lost or destroyed.

IN order to economize space, a new arrangement of the summary of Entomological Literature is adopted in this number of the NEWS. This, it is believed, retains the more useful features of the former plan without sacrificing any others of importance. As before, this department is in charge of the Associate Editor, all else being under the Editor's direction. The Associate Editor will always thankfully receive any suggestions as to the conduct of this department.

Notes and News.

ENTOMOLOGICAL GLEANINGS FROM ALL QUARTERS OF THE GLOBE.

[The Conductors of ENTOMOLOGICAL NEWS solicit, and will thankfully receive items of news, likely to interest its readers, from any source. The author's name will be given in each case for the information of cataloguers and bibliographers.]

To Contributors.—All contributions will be considered and passed upon at our earliest convenience, and as far as may be, will be published according to date of reception. ENTOMOLOGICAL NEWS has reached a circulation, both in numbers and circumference, as to make it necessary to put "copy" into the hands of the printer, for each number, three weeks before date of issue. This should be remembered in sending special or important matter for certain issue. Twenty-five "extras" without change in form will be given free when they are wanted, and this should be so stated on the MS. along with the number desired. The receipt of all papers will be acknowledged.—ED.

PICTURES for the album of the American Entomological Society have been received from T. D. A. Cockerell and his son, Mesilla, New Mex., and L. E. Ricksecker, Santa Rosa, Cala.

A little-known *Halictus*. By Charles Robertson, Carlinville, Ill.

Halictus lustrans.

Panurgus lustrans Cockerell, Tr. A. E. S. xxiv, 147, ♀, 1897.

SIMULIUM OCHRACEUM AGAIN.—On July 7, 1894, along the west slope of the Medicine Bow Range near Cameron Pass in northern Colorado, at an altitude of 9500 feet, I found this Buffalo gnat very abundant. They worried our horses badly, affecting, principally, the ears, breast and flanks, eventually causing the formation of large, thick scabs. I kept my saddle horse free by daubing the affected parts with axle grease from the wagon hubs. Mr. Coquillett determined the species for me during the same year (1894).—C. F. BAKER.

THE collection of Coleoptera made by the late A. S. Fuller, of Ridgewood, N. J., is in the market. It contains over 4300 named species exclusive of varieties and a large amount of material not yet arranged. Counting species not included in the published list and in groups not worked up, the number of species will exceed 4500. Of most species there are good series, and all the material is in good boxes and in good condition. Further information as to the price, etc., may be obtained from Prof. John B. Smith, New Brunswick, N. J.

THE Louisiana Society of Naturalists was organized at New Orleans on July 30th with Prof. J. H. Dillard president and Mr. E. Foster secretary. The society starts with about forty charter members and much interest is being shown by naturalists of the State. The objects of the society are the encouragement and advancement of the study of natural history, the accumulation of a library, the publication of valuable papers and the forming of a museum. We wish the society success and long life, and we would like to see many other such societies in the West and South.

DEAR SIR.—I take the liberty to inform you of my purpose to continue the publication of my work on *hybrids* by studying the subject on the insects, fishes and reptiles.* I shall accept, with gratitude, the help of your own observations as the communication of the interesting cases you may have heard of. I shall be greatly obliged to you if you have also the kindness to make me out some reviews, travels, etc., in which I am to find the relation of facts of *hybridity*. Many a worthy remark would be neglected if I were to be left to my own researches.—A. SUCHETET, Chateau d'Antiville Par Breaute (Seine-Inferieure), France.

A SWARM OF APHODIUS INQUINATUS.—My friend, Mr. Wm. Trimble, of Concordville, Delaware County, drove through a swarm of insects in the latter part of March last. It was shortly before sunset and they were flying from east to west across his path and across the wind. The swarm he says was fully one-quarter mile wide, and he tried by rapid driving to trap some in the hood of his buggy. Failing in this he alighted, and, after a number of attempts, caught three. When he first saw them he thought they were mosquitoes or gnats, and wondered that they appeared so early in the season. He met them on the road from Cheyney's Station, West Chester Railroad, to Markham Station, Baltimore Central Railroad, and about three-quarters of a mile north of the latter.—CHAS. SCHAFFER.

BEETLES IN SEEDS OF HONEY LOCUST.—In conducting an experiment with forest tree seedlings under the direction of the Division of Forestry, U. S. Dept. of Agric., seeds of the Honey Locust, *Gleditschia tricanthos*, from seven different States and Ontario were kept through the Winter for Spring planting. Upon opening the seed packages April 25th beetles were found among the seeds, wherefore an examination was made and all specimens removed and counted. One-fourth of a pint of the seeds came from each State and I report the result of the examination thinking it may be of some interest as showing something about the distribution of the insect. The beetle was identified as *Spermophagus robiniæ* Sch. by Dr. Henry Skinner. The number after each State indicates the number of beetles found in seeds from that State: Alabama, 7; Connecticut, 0; Kansas, 1; Kentucky, 5; Nebraska, 3; Ohio, 14; Ontario, 7; Pennsylvania, 39.—W. E. BRITTON, New Haven, Conn.

Identification of Insects (Imagos) for Subscribers.

Specimens will be named under the following conditions: 1st, The number of species to be **limited to twenty-five** for each sending; 2d, The sender to pay all expenses of transportation and the insects to become the property of the American Entomological Society; 3d, Each specimen must have a number attached so that the identification may be announced accordingly. Exotic species named only by special arrangement with the Editor, who should be consulted before specimens are sent. Send a 2 cent stamp with all insects for return of names. **Please put date of capture and exact locality on each specimen.** Before sending insects for identification, read page 41, Vol. III. Address all packages to ENTOMOLOGICAL NEWS, Academy Natural Sciences, Logan Square, Philadelphia, Pa.

* The first volume has just been published and speaks of birds in wild state.

Entomological Literature.

Under the above head it is intended to note such papers received at the Academy of Natural Sciences of Philadelphia pertaining to the Entomology of the Americas (North and South). Articles irrelevant to entomology, unless monographs, or containing descriptions of new genera, will not be noted. Contributions to the anatomy, physiology and embryology of insects, however, whether relating to American or exotic species, will be recorded. The numbers in **heavy-faced type** refer to the journals, as numbered in the following list, in which the papers are published; * denotes that the paper in question contains descriptions of new North American forms.

1. Proceedings of the Academy of Natural Sciences of Philadelphia, 1897.—**2.** Transactions of the American Entomological Society, Philadelphia, '97.—**3.** The American Naturalist, Philadelphia, '97.—**4.** The Canadian Entomologist, London, Ont., '97.—**5.** Psyche, Cambridge, Mass., '97.—**6.** Journal of the New York Entomological Society, June, '97.—**7.** U. S. Department of Agriculture, Division of Entomology, Washington; publications of, '97.—**8.** The Entomologist's Monthly Magazine, London, '97.—**9.** The Entomologist, London, '97.—**10.** Nature, London, '97.—**11.** The Annals and Magazine of Natural History, London, '97.—**12.** Comptes Rendus. L'Academie des Sciences, Paris, '97.—**13.** Comptes Rendus. Societe de Biologie, Paris, '97.—**14.** Proceedings of the Zoological Society of London, '97.—**15.** Biologia Centrali-Americana, London, '97.—**16.** Bulletin de la Societe Nationale d'Acclimatation de France, Paris, '97.—**17.** Sitzungsberichte der königlich preussischen Akademie der Wissenschaften zu Berlin, '96.—**18.** The Ottawa Naturalist, '97.—**19.** Horæ Societatis Entomologicæ Rossicæ, xxx, 3-4, St. Petersburg, '97.—**20.** Bulletin de l'Academie Imperiale des Sciences, de St. Petersbourg, Ve Série.—**21.** The Entomologist's Record, London, '97.—**22.** Zoologischer Anzeiger, Leipsic, '97.—**23.** 21st Annual Report of the Department of Geology and Natural Resources of Indiana, Indianapolis, '96.—**24.** Berliner Entomologische Zeitschrift, xli, 4, May, '97.—**25.** Bolletino dei Musei di Zoologia ed Anatomia Comparata d. R. Universita di Torino, 1897.—**26.** Appletons' Popular Science Monthly, New York, July, '97.—**27.** Atti del R. Istituto Veneto di Scienze, Lettere ed Arti, liv, Venice, 1896.—**28.** Archives d'Anatomie Microscopique, I, 2, Paris, May 31, '97.—**29.** Société d'Histoire Naturelle d'Autun, Bulletin.—**30.** Memoires de la Société Zoologique de France, ix, 1896.—**31.** Abhandlungen herausgegeben von der Senckenbergischen Naturforschenden Gesellschaft, xxiii, 3. Frankfurt a. M. 1897.—**32.** Bulletin du Muséum d'Histoire Naturelle, Paris, 1897.

General Works.—The Great Rift Valley being the narrative of a journey to Mount Kenya and Lake Baringo. . . . By J. W. Gregory. London, John Murray, 1896 (mimicry).—The evolutional cycle of the Coccidiæ in Arthropods, L. Leger **12,** May 3.—Notes on a recent zoological expedition on the lower Amazons, E. E. Austen, **14,** 1896, pt. iv, April 1, '97.—Notice of the scientific works in the field of entomology

during the year 1894, General, Apterygogenea, Rhynchota, Orthoptera, Neuroptera, Thysanoptera, Pseudoneuroptera, Trichoptera, Lepidoptera, Dr. R. Lucas; Arachnoidea, Hymenoptera, Dr. H. Stadelmann; Myriapoda, Dr. C. Verhoeff; Diptera, Aphaniptera, Dr. B. Wandolleck; Coleoptera, H. J. Kolbe; Archiv. f. Naturgeschichte, lxi, 2, Berlin, April, '97.—Comparative researches on the living habits of invertebrate carrion feeders, F. Dahl, **17,** Jan. 16.—Report of Entomological branch, Ottawa Field-Naturalists' Club, **18,** April.—On the excretory organs of some insects (in Russian), S. Métalnikoff, 1 pl. **20,** iv, 1, Jan., '96.—See Coleoptera, Linell.—Indiana caves and their fauna. W. S. Blatchley **23,** pls.—Insects collected at Jackman, Maine, F. L. Harvey and O. W. Knight, **5,** June.—The development of instinct, Wasmann, Verhandlungen k. k. zoologisch-botanischen Gesellschaft in Wien, xlvii, 3, May 17, '97.—The subterranean fauna. studies on the cavernicolous fauna of the Jura, with some words on the fauna of the catacombs of Paris and of the subterranean refuges of Naours (Somme), prehistoric researches in the Doubs and the Jura, A. Viré, Memoires de la Société de Spéléologie, No. 6, Paris, Aug., '96.—The blind fauna of the caverns of the Philippine Islands and of the Transvaal, E. Simon, Bulletin of the same Société, No. 8, Oct.-Dec., '96.—The protective value of action, volitional or otherwise in protective mimicry, F. M. Webster, **6.**—Hermaphrodite earwig, M. Burr, **8,** July.—The sanguinous globules and lymphoid organs of Invertebrates, L. Cuénot, 1 pl., **28.**—List of insects collected in the interior of the Labrador peninsula, 1894, J. Fletcher, Annual Report, Geological Survey of Canada 1895, Ottawa, '97.—Instructions for collecting articulate animals, part ii, insects, C. Brongniart, figs., **29,** ix, 1896.

Economic Entomology.—Typhus and Insects, H. Coupin, La Nature, Paris, May 8, '97.—The army worm, M. V. Slingerland, Bulletin 133, Cornell University Agric. Experiment Station, Ithaca, N. Y., April, '97.—The diseases of bees, C. Conze, and *Cassida viridis* parasitic on artichokes, F. Decaux, **16,** March.—Abstracts of recent publications, **7,** Experiment Station Record, viii, 8, 9, '97.—On a new species of Aphidinæ found in Crimea on the roots of the vine, S. Mokrzecky, **19.**—*Telenomus sokolowi* Mayr, description, habits and significance in agriculture, N. Sokolow **19.**—See Coleoptera, Morley.—For sericulture see Lepidoptera.—The Colorado potato beetle in Mississippi, H. E. Weed, Bull. 41 Miss. Agric. and Mechan. College Experiment Station, March, '97.—The canker worm, C. M Weed, figs., Bull. 44, New Hampshire Agric. Exper. Station, April, '97.—The chinch bug and other destructive insects, F. M. Webster, figs., Bull. 77, Ohio Agric. Exper. Sta., Wooster, O., Feb., '97.—Sheep scab; A few insect enemies of the orchard, C. P. Gillette, figs., Bull. 38, Colorado State Agric. Exper. Sta., Fort Collins, April, '97.—The wooly aphis of the apple, C. L. Marlatt, figs.; The strawberry weevil, F. H. Chittenden, figs., **7,** circulars 20 and 21, March 15 and 18.—Canker worms, army worm, currant stem-girdler, fruit bark beetle, thrips, asparagus beetle, W. E. Britton, figs. 20th Annual Report Connecticut Agric. Exp.

Station, '96, pt. iii. New Haven, '97.—Insect control in California, C. L. Marlatt, figs., and The asparagus beetles, F. H. Chittenden, figs. **7,** Yearbook for '96.—Insect powders of commerce, G. R. Durrant, American Journal of Pharmacy, Philadelphia, July, '97.—Pear-borer (*Nephopteryx rubrizonella* Rag.), M. Matsumura, Annotationes Zoologicæ Japonenses, I, 1 and 2, Tokyo, May 25, '97.—Destruction of caterpillars of *Liparis chrysorrhœa* by *Empusa aulicæa* in the Botanical Garden, Berlin, Herr Reh, Naturwissenschaftliche Wochenschrift, Berlin, June 20, '97.—Defoliation of cork trees in Tunis by *Ocneria dispar*, Rev. A. E. Eaton, **8,** July.—Food-plants of the San José scale (*Aspidiotus perniciosus*) in Ohio, exclusive of fruit-trees, F. M. Webster, **4,** July.—Some common injurious plant lice, W. G. Johnson, Bulletin 48, Maryland Agr. Exp. Sta., College Park, Md., June, '97.—On some insects injurious to fresh or salt meats, Rebeillard and Marchal, **29,** vii, 1894 (comptes rendus).—Insects injurious to the vine, C. Marchal, **29,** ix, 1896 (comptes rendus).—On the parasites of the silk worm and its maladies, contribution to the study of *flacherie, grasserie* and *pebrine*, I. Krasilshtshik, **30.** —See also Neuroptera, Martin.

Myriapoda.—New Coccidiæ of the digestive tube of Myriapods, L. Leger, **12,** April 26, '97.—Description of a new family of Diplopods from Mexico,* Dr. F. Silvestri, **25,** No. 277, Feb. 22.—Chilopods and Diplopods, voyage of Dr. A. Borelli in Bolivia and the Argentine Republic, id., **25,** No. 283, March 23.—Myriapoda [collected by Prof. Kükenthal in the Moluccas], Dr. C. Attems, 4 pls., **31.**

Arachnida.—Ottawa Hydrachnida, H. M. A., **18,** March, '97.—Descriptions of some new species of scorpions of the genus *Tityus*, with notes upon some forms allied to *T. americanus* L.,*, R. I. Pocock, **11,** May, '97.—On the genus *Eylais* Latr.,* T. Koenike, figs. Abhandlungen, Naturwissenschaftlichen Verein zu Bremen, xiv, 2, 1897.—On some new species of Acari from Bolivia, G. Canestrini, 1 pl., Atti Societa Veneto-Trentina di Scienze naturali (2), iii, 1, Padua, '97.—On some new and little-known spiders, O. P. Cambridge, 1 pl., **14,** 1896, pt. iv, April 1, '97. —[Central American] Arachnida Araneidea, pls. xxiv, xxv, O. P. Cambridge, **15,** pt. cxxxiv, March, '97.—Revision of the *Uropygi* Thor. (Thelyphonidæ auct.), K. Kraepelin, 2 pls. Abhandlungen, Naturwissenschaftlichen Verein in Hamburg, xv, 1897.—A new lymphatic gland in the European scorpion, A. Kowalewsky, **20,** iii, 2, Sept., '95.—[Indiana cave Arachnida*], N. Banks, **23.**—*Antennophorus* (see Hymenoptera, Janet).—List of the Arachnids collected in the Cape Verde Islands, Argentine Republic and Paraguay [by Dr. A. Borelli] and descriptions of new species, E. Simon, **25,** No. 270, Feb. 4.—Are scorpions matricides and suicides, Dr. J. Vilaro, fig., **26.**—Revision of the family Ixodidæ, G. Neumann, figs., **30.**—An interesting new Hydrachnid from the collections of M. Geay in Venezuela, S. Thor, figs., **32.**—Application of microscopic photography to the study of the plumicolous Sarcoptidæ, Favette and Trouessart, fig., **32.**

Thysanura and Collembola.—On the apparent structure of the scales of *Seira buskii* in relation to the scales of *Lepidocyrtus carvicollis*, R. L. Maddox, 1 pl. Trans. Amer. Microscop. Soc., xviii, Buffalo, 1897. —*Apterygogenea fennica*, O. M. Reuter, 2 pls. Acta Societatis pro Fauna et Flora Fennica, xi, Helsingfors, 1895 (rec'd May 27, '97).—Embryological researches on *Lepisma saccharina*, R. Heymons, 2 pls. Zeitschrift für wissenschaftliche Zoologie, lxii, 4, Leipsic, May 11, '97.—A contribution to the embryology of the Insecta apterygota, R. Heymons, **17,** Dec. 10.—The ventral tube and the cephalic glands of *Sminthurus*, V. Willem and H. Sabbe, Annales de la Société Entomologique de Belgique, xli, 5, Brussels, May 31, '97.—*Campodea staphylinus* Westwood and its cavernicolous varieties, A. Viré, figs., **32**.

Orthoptera.—[Central American] Orthoptera, pp. 225–256, pls. xii, xiii,* H. de Saussure, **15,** pt. cxxxiv, March, '97.—The species of the genus *Melanoplus*,* S. H. Scudder, Proc. Amer. Philosophical Society, xxxvi, 154, Philadelphia, Jan., '97 (rec'd May 28).—On the absorbtion of iron by the digestive tube of *Blatta orientalis* (in Russian), S. Metalnikoff, figs., **20,** iv, 5, May, '96.—Notes on New England Acrididæ iii, Oedipodinæ v, vi, A. P. Morse, **5,** June, July.—On the Malpighian tubules of Orthoptera, L. Bordas, **11,** June.—Revision of the Salomonitæ, Locustidæ of the tribe C nocephalinæ, C. Brongniart, figs., Bulletin, Société Philomathique de Paris (8), viii, 2–4, 1896. Rec'd July 4, '97.—The species of *Anabrus* and their distribution, S. H. Scudder, **5,** July.

Neuroptera.—The constitution and development of the society of Termites: observations on their habits with appendices on the parasitic protozoa of Termitidæ, and on the Embiidæ (concl.), B. Grassi and A. Sandias, Quarterly Journal of Microscopical Science, xl, 1, London, April, '97.—Golden-eye or lace-wing fly (*Chrysopa*), C. M. Weed, **3,** June, '97. —*Libellula deplanata* of Rambur, J. G. Needham, **4,** June.—List of the Neuroptera collected by Mr. E. E. Austen on the Amazons, etc., during the recent expedition of Messrs. Siemens Bros. Cable S. S. "Faraday," with descriptions of several new species of Odonata (Dragonflies), W. F. Kirby, 2 pls. **11,** June.—List of dragonflies taken near Buffalo, N. Y., E. P. Van Duzee; Additions to the Odonata of New York State, P. P. Calvert, **6.**—Preliminary studies of N. American Gomphinæ, J. G. Needham, **4,** July.—Large dragonflies considered as useful animals destroying injurious insects, R. Martin, **16,** July.

Hemiptera.—Chermotheca Italica continens exsiccata, in situ, coccidarum plantis precipue cultis, in Italia occurrentibus, obnoxiarum [with text]. Prof. Antonio Berlese e Dr. Leonardi Gustavo, R. Scuola Superiore di Agricoltura in Portici. Fascicolo ii, 1897.—Some new and little-known Dorydini (Jassinæ),* C. F. Baker, **4,** June.—Contributions to the knowledge of the labium of Hydrocoræ, N. Leon, figs., **22,** 527.—A new subfamily in the Jassidæ, C. F. Baker, **5,** June.—Contributions to Coccidology ii, T. D. A. Cockerell, **3,** July.—Some new and little-known Coccidæ from Florida–i,* T. D. A. Cockerell–ii, Biological observations, A. L. Quain-

tance; Two forms of fluted scale, T. D. A. Cockerell, **5,** July.—A new *Aleurodes* on *Rubus* in Florida,* T. D. A. Cockerell, **6.**—Observations on Coccidæ, No. 16, R. Newstead, figs., **8,** July.—Evolution of *Schizoneura lanigera*, J. Lignières, 2 pls., **30.**—The fossil *Belostoma* of the museums of Munich and Haarlem, F. Meunier, 3 pls., **30.**

Coleoptera.—(Central American) Coleoptera vol. iii, pt. 1, pp. 609-624.* G. C. Champion, and vol. vii, pp. 217-232,* H. S. Gorham, **15.** pt. cxxxiv, March, '97.—A descriptive catalogue of the Coleoptera of South Africa, part ii, L. Péringuey, Transactions South African Philosophical Society, vii, Capetown, '96.—Materials for the study of the *Feronias* iii, T. Tschitschérine, **19.**—The Coleoptera of Canada: xxiv, Cerambycidæ of Ontario and Quebec (cont.), H. F. Wickham, figs., **4,** June, July.—Beetles that destroy forests, C. Morley, **21,** May 15.—New species of South American Eumolpidæ, M. Jacoby, **9,** June, July.—On the insects collected by Dr. Abbott on the Seychelles, Aldabra, Gloriosa, and Providence Islands, with descriptions of nine new species of Coleoptera, M. L. Linell, Proceedings U. S. National Museum xix, No. 1119, 1897.—Identification tables of the European Coleoptera: Carabidæ, part i, Carabini, E. Reitter, Verhandlungen des naturforschenden Vereines in Brünn, xxxiv, 1896.—A chrysalid of *Enoplocerus armillatus* L., Dr. E. Goeldi, 2 pls.; Coleopterological chases near Para, E. Gounelle, Boletim do Museu Paraense de Historia Natural e Ethnographia, ii, 1, May, '97.—Description of new Coleoptera [*Anthicus*],* M. Pic, Le Naturaliste, Paris, June 15, '97.—New genera and species of North American Curculionidæ,* M. L. Linell, **6.**—Coleopterine, a red pigment in the elytra of some Coleoptera, A. B. Griffiths, **12,** June 21.—Oviposition of *Dorytomus squamosus*, C. P. Gillette, **4,** July.—Contribution to the study of the first phenomena of embryonic development in insects, particularly in the Coleoptera, A. Lécaillon, 1 pl., **28.**—Habits and metamorphoses of insects (cont.), Capt. Xambeu; Contribution to the study of the Longicorns of Bolivia, R. P. Belon, Annales de la Société Linnéenne de Lyon, 1896.—New Eucnemidæ, Eucnemidæ of the Museum of Natural History of Paris, E. Fletiaux, **30.**—Complementary observations on the oviposition and habits of *Melolontha vulgaris*, X. Raspail, **30.**

Diptera.—Systematic revision of the European species of Culicidæ (concl.), E. Ficalbi, Bull. Societa Entom. Italiana, xxviii, 3 and 4. Florence, April 30, '97.—Foot of the House-fly, A. A. C. E. Merlin, Journal Quekett Microscopical Club, London, April, '97. Extract in American Monthly Microscopical Journal, Washington, June, '97.—Contribution to the knowledge of North American Syrphidæ ii,* W. D. Hunter, 1 pl., **4,** June.—On a collection of Diptera from Indiana caves,* J. M. Aldrich, figs., **23.**—E. D. Cope, as an entomologist, C. R. Osten Sacken, **5,** June.—Prof. Mik's genus *Paracrocera* (Cyrtidæ), with a postscript about the genus *Allœoneurus* Mik (Dolichop.), C. R. Osten Sacken, **24.**—On the terms Calypteratæ and Acalypteratæ, Calypta and Calyptra as they have been used in Dipterology, id., **24.**—Preliminary notice of a subdivision

of the suborder Orthorrhapha Brachycera (Dipt.) on chætotactic principles, id., **24.**—The genus *Phyllolabis* O. S. (Dipt., Tipul.); a remarkable case of disconnected areas in geographical distribution, id., **24.**—The male of *Dicrania cervus* Wied., Dr. E. Giglio-Tos, **25,** No. 276, Feb. 18.—Two new species of Asilids from New Mexico,* B. Brown, Kansas University Quarterly (A) vi. 2, Lawrence, Kans., April, '97.—Diptera from the headwaters of the Gila River–ii,* C. H. T. Townsend, **5,** July.—Remarks upon methods of killing Diptera, R. H. Meade, **8,** July.—The raspberry cane maggot (*Phorbia rubivora* Coq.),* M. V. Slingerland, **4,** July.—Contributions from the New Mexico Biological Station, No. ii (cont.): On a collection of Diptera from the lowlands of the Rio Nautla, in the State of Vera Cruz,* C. H. T. Townsend, **11,** July.

Lepidoptera.—Icones Ornithopterorum: a monograph of the Rhopalocerous genus *Ornithoptera*, R. H. F. Rippon, published by the author, London, Part 9 rec'd May 30, '97.—[Central American] Lepidoptera Heterocera, vol. ii, pp. 361–392, pls. lxxiii–lxxv,* H. Druce, **15,** pt. cxxxiv, March, '97.—Biology of Russian Lepidoptera–v. Coloration and ocellate spots, their origin and development (in Russian), J. Portschinsky, 1 pl., **19.**—Notes on Rhopalocera, with descriptions of new species and varieties,* H. Skinner, **4,** June.—*Brotis vulneraria* again, J. A. Moffat, **4,** June.—*Hydriomena furcata* (*Hypsipetes sordidata*): its synonymy, variation, geographical distribution and life-history, L. B. Prout, **21,** May 15.—On the geographical distribution and post-glacial derivation of the Palæarctic and Nearctic alpine Rhopalocera faunas, W. H. Bath, **9,** June.—Notes on the synonymy of Noctuid moths, A. G. Butler, **9,** June.—Rapport présenté a la Chambre de Commerce de Lyon par la commission Administrative [de la] Laboratoire d'Etudes de la Soie, Lyon, '97 Contains: Study of the cocoon of *Bombyx mori* from the point of view of the industrial qualities of the silk, J. Raulin. Remarks on the heredity of acquired characters, G. Contagne. Circumstances which influence the industrial qualities of the cocoon of *Bombyx mori*, J. Raulin. Study of the industrial qualities of the same, id. Essay on classification of silk-producing Lepidoptera, J. Dusuzeau and L. Sonthonnax, 23 pls. Fixation of tannic and gallic acids by silk, L. Vignon. On various rearings of domesticated and wild silk-worms made at Ecully near Lyons, J. Clerc. On smothering cocoons and the influence of this operation on the silk, D. Levrat. Application of X-rays to determine sexes of chrysalids within the cocoons, J. Testenoire and D. Levrat, 2 pls.—A cave-inhabiting moth, M. E. Murtfeldt, **23.**—The larva of *Lycomorpha pholus*, H. G. Dyar, **5,** June.—List of the palæarctic species of Macrolepidoptera in which the phenomenon of gynandromorphism has been observed, O. Schultz, **24.**—Lepidoptera Indica. By F. Moore. Part xxvii (Euthaliina, cont.). London, L. Reeve & Co., '97 (rec'd June 25).—The development of the wing, wing-scales and their pigments in butterflies and moths, J. W. Tutt, 1 pl.; On Lepidopterous larvæ, H. G. Dyar, **21,** June 15.—Notes on some species of North American Moths,* W. Beutenmüller, fig. Bulletin,

American Museum of Natural History, ix, art. xiv, New York, July 2, '97. Notes on North American Sesiidæ, with descriptions of new species, and Food-habits of North American Sesiidæ, id.; l. c. articles 15 and 16. New York, July, '97.—Life-histories of the New York slug caterpillars, x–xi, H. G. Dyar, 2 pls. Note on Mr. Grote's remark on the Saturnian, id.; *Gluphisia severa* in New Jersey, id., **6.**—The postembryonal development of the accessory sexual organs in the female of *Bombyx mori*, E. Verson, **27.**—On the synonymy of the butterflies of the genus *Teracolus*, G. A. K. Marshall; Revision of the West Indian Microlepidoptera, with descriptions of new species,* Lord Walsingham, **14,** '97, pt. 1, June 1.—The Columbine borer (*Hydræcia purpuritascia* G. and R.), M. V. Slingerland, 1 pl.; The hind wings of the day butterflies, A. R. Grote; Successful collecting at electric light, J. A. Moffat, **4,** July.—Lepidoptera [collected by Prof. Kükenthal in the Moluccas], Dr. A. Pagenstecher, 3 pls., **31.**

Hymenoptera.—Hymenoptera Parasitica-Proctotrypidæ, W. H. Harrington, **18,** March.—North American Bees, descriptions and synonyms,* C. Robertson, Transactions, Academy of Science of St. Louis, vii, 14, May 7, '97.—Description of *Prestwichia aquatica* Lubbock, V. Willem, figs., 1 pl. Bulletin scientifique de la France et de la Belgique, xxx, 1, Paris, April 24, '97.—The Fauna of British India, including Ceylon and Burma. Hymenoptera, vol. i, Wasps and Bees, Lieut.-Col. C. T. Bingham, London, Taylor & Francis, 1897.—On the bleeding of Cimbicid larvæ, N. Cholodkovsky, **19.**—Naked and cocoon pupæ of ants, G. B. King, **4,** June.—The Pompilid genus *Notocyphus* F. Sm. monographically treated, R. Lucas, Entomologische Nachrichten xxiii, 5 and 6, Berlin, March, '97.—California bees and their parasites, figs.,* A. Davidson, Proceedings Southern California Academy of Sciences 1, 3, Los Angeles, Dec., '96—Seed crests and myrmecophilous dissemination in certain plants, C. Robertson, Botanical Gazette, Chicago, April, ,97.—On the Chalcididæ of the Island of Grenada, B. W. I.,* L. O. Howard, Journal Linnean Society. Zoology, xxvi, London, '97.—On the relations of *Antennophorus uhlmanni* Haller to *Lasius mixtus* Nyl., C. Janet, **11,** June. —Seven new species of the genus *Euglossa* Latr. in the collection of the Hungarian National Museum,* A. Mocsary Természetrajzi Füzetek, xx, iii, Budapest, June 6, '97.—Some facts about wasps and bees, Dr. R. W. Shufeldt. figs., **26.**—Species des Hyménopteres d'Europe et d'Algerie fondé par E. André, 58e Fascicule: Tome Vbis, Braconidæ, 3rd supplement-part, 3 pls., Paris, Vve Dubosclard, April 1, '97.—Notes on the transformations of the higher Hymenoptera, ii, A. S. Packard, figs., **6.**—Myrmecological studies, iii. *Tomognathus sublævis* Mayr. [in Swedish], G. Adlerz, 1 pl., Bihang till Kongl. Svenska Vetenskaps-Akademiens Handlingar, xxi, 4, 4. Stockholm, 1895; rec'd July 8, '97.—The flying bridge of ants, F. Bonatelli, **27.**—Further notes on sections of *Augochlora*, C. Robertson, **4,** July.—Note on the knowledge of the Palæarctic Mutillas, ii, E. André, **30.**

Doings of Societies.

PHILADELPHIA, June 8, 1897.

A stated meeting of the Feldman Collecting Social was held at the residence of Mr. H. W. Wenzel, 1509 S. 13th Street. Meeting called to order at 9 P.M. Vice-president D. M. Castle presiding.

Prof. Smith exhibited a small species of Lepidoptera, probably *Triprocris smithsonias*, captured at Anglesea, N. J., recently on the bloom of wild cherries, which the speaker declared he had never seen so far north; he had compared it with specimens received from Texas, which it greatly resembles; he further stated that Mr. Wenzel had shown him specimens of the same captured at Anglesea the week previous, which were beaten from the oak. Continuing, he mentioned that *Crioceris 12-punctatus* was found recently in Monmouth County, N. J., showing that it now thrives on the Atlantic coast as well as on the Delaware River, being now found as far north as Staten Island.

Mr. Boerner exhibited a collection of Coleoptera, among which he mentioned the following species captured at Westville, N. J., May 23: *Coccidula lepida*, *Stenispa metallica*, *Donacia rufa*, *Anisostica strigata* and *Dodes amaroides*. The first four-named species were found living in the tussocks. He also showed three specimens of *Pterostichus ebeninus* found at the Philadelphia Neck, May 16.

Mr. H. W. Wenzel exhibited four species of Coleoptera and their food-plant—*Physolis heterosphylle* Neis. previously found by Dr. Castle at Glenolden, Delaware County, Pa. Three of the species: *Trichobaris trinotata*, *Coptocycla clavata* and *Lema trilineata* were found feeding upon the stem, while *Epitrix parvula* were found upon the flower of this plant.

Dr. Castle mentioned finding *Pachyscelus purpureus* at Glenolden, Pa.; also reporting the capture of *Baris scolopacea* at Masonville, N. J., June 4.

Mr. Fox stated that he had recently found an interesting book in a second-hand bookstore entitled, "Drawings of American Insects," by Titian R. Peale, which was shown. The drawings were made by Mr. Peale himself, finished in water-colors, and show the life-history of several species of Lepidoptera.

Mr. Laurent exhibited a series of *Syneda graphica* from Clementon, N. J., showing considerable variation in the median band of hind wing.

Mr. Johnson exhibited a number of rare Diptera of the family Xylophagidæ.

Dr. Skinner suggested that the Social hold out-door meetings during July and August, upon which **it was moved by Mr. Laurent** that a July meeting be held at Westville, N. J., on Saturday the 17th inst.; carried. **Mr. Wenzel then moved** that a committee of two be appointed to secure suitable quarters for this meeting; the chairman, thereupon, appointing Dr. Skinner and Mr. Boerner on said committee with instructions to report at July 4th meeting.

No further business being presented the meeting adjourned to the annex at 10.20 P.M.

THEO. H. SCHMITZ, *Secretary*.

The Entomological Section

ACADEMY OF NATURAL SCIENCES, PHILADELPHIA.

PROCEEDINGS OF MEETINGS.

The following papers were read and accepted by the Committee for publication in ENTOMOLOGICAL NEWS:

LIFE-HISTORY OF ERYCIDES AMYNTAS Fab.

By HARRISON G. DYAR.

I found these larvæ at Miami, Fla., but, being unable to remain in the place long enough to breed them, I turned them over to Mrs. Slosson, who obtained the butterfly and determined the species.

Egg.—Cylindrical, swollen above the base, flat above and below; fourteen sharp, narrow, plate-like ridges, each broadened at top so much that they are contiguous, forming a crest around the deep, smooth micropyle; light green, later reddish, the ridges white, the crest conspicuous, snowy white; no cross lines visible under a lens, but under a half-inch objective the ridges are very finely fluted. Diameter, .8 mm.; height, .9 mm.

Stage I.—Head dull black, rounded, vertex square, slightly notched; width .55 mm. Body unicolorous, semi-translucent ocher-yellow, segments well marked; setæ inconspicuous, short, white, with large swollen

tips; primary setæ only present, iv and v in line on the submarginal ridge, remote; vii of two setæ on the base of the leg; crotchets of abdominal feet in an ellipse, somewhat oblique.

Stage II.—Head wide, shallowly cordate, dull black, punctured; width .9 mm. Body greenish, shaded with ocherous at each end, segments faintly annulate posteriorly; slightly shining, translucent; a few yellow dots; pile sparse, minute.

Stage III.—Head broad, shallowly cordate, bilobed; black, immaculate, rough; width 1.5 mm.; no distinct cervical shield nor anal plate. Body smooth, translucent, pale yellowish green, dotted with yellow; a narrow subdorsal and lateral lines, the latter above the subventral ridge, both yellow. Feet concolorous with the body; pile obsolescent, pale, hardly visible.

Stage IV.—As before, the yellow dots on the body larger and thicker; subdorsal and substigmatal lines present; a greener dorsal vascular line; the larva looks smooth, not hairy; no cervical shield; head rough and punctured; width 2.5 mm.

Stage V.—Head cordate, bilobed, mouth small; rounded, flat before the apex, clypeus small; width 4.3 mm. Greenish white, shagreened; occiput behind, a line from over the eye upward and a spot on the front aspect of the lobe near apex black; neck small, no cervical shield nor anal plate: segments smooth centrally, densely wrinkled-annulate at the posterior and in four or five small annulets. Feet small; appearance, yellow-green; skin translucent, light green, mostly by transparency; a distinct, straight, yellow subdorsal line on joints 3–12; dense, fine, yellow longitudinal strigæ, confluent in little blotches and along the subventral fold in an ill-defined line. Body almost naked; an abundant fine pile, but very short and obscure, white; spiracles pale.

Food plant.—The larvæ live in a folded leaf in the manner of *Eudamus tityrus*. They frequent the young leaves of the Jamaica dogwood (*Piscidia erythrina*). I am indebted to Mr. Kinzel for the name of the plant.

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A LEUCOCHRYSA FROM FLORIDA.

By Nathan Banks.

The genus *Leucochrysa* was erected by McLachlan for certain South American *Chrysopas* which differed from the typical form in having very much longer antennæ, excised labrum and broad wings. Hitherto no species of this genus have been recognized in the United States. It therefore gives me pleasure to present a new species obtained in Florida by that well-known collector, Mrs. A. T. Slosson.

This makes four genera of Chrysopidæ known to occur in our country. They may be tabulated as below.

1. Third cubital cell equally divided . . . . . **Nothochrysa.**
   Third cubital cell unequally divided . . . . . 2.
2. Antennæ much longer than wings . . . . . **Leucochrysa.**
   Antennæ equal to, or shorter than wings . . . . . 3.
3. Antennæ well separated at base, basal joint slender, ♂ with a horn between antennæ . . . . . **Meleoma.**
   Antennæ closer together, basal joint stouter, ♂ without horn between antennæ . . . . . **Chrysopa.**

Leucochrysa floridana n. sp.—Green; face yellowish, without markings; front with a transverse brown line from eye to eye, angulated in the middle just above antennæ; antennæ much longer than wings, basal joints rather close together, short, swollen on the inner side, yellowish, with two red lines above, rest of antennæ pale greenish; prothorax green, a red mark on each anterior side margin, a little longer than broad, narrowed in front; rest of thorax green. Legs pale. Abdomen greenish, a black dot on each side of the upturned anal plate of the ♂. Wings hyaline, veins green, a few of the transversals brown at the ends; pterostigma brownish, very distinct, especially in hind wings; fore wings broad, scarcely pointed, hind pair much narrower and more pointed at tip; third cubital cell plainly longer than the second, only a little broader; the divisory veinlet arises quite close to the cubitus; alar expanse 36 mm.

One specimen, Lake Worth, Florida.

OBITUARY.

Mr. ROBERT T. SAUNDERS, of Barnstable, Mass., died September, 1896. Mr. Saunders was interested in the Lepidoptera.

Mr. AUGUST MERKEL, of 310 Humboldt Street, Brooklyn, after a short, but severe illness, died August 19th. He was born July 8, 1837, in Einbeck, near Hanover, Germany, and, although not literally active in Entomology, was one of our oldest and foremost collectors in Coleoptera—a number of beetles bear his name, and his remembrance will be highly regarded by all who met him as a perfect gentleman, a genial, kind-hearted entomologist, always liberal and generous and willing to help and assist —and as a true friend.—OTTOMAR DIETZ.

ERRATA.

Vol. viii, p. 68, for *Philanthus anna* read *Philanthus annæ*.

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